

primary classification is on the basis of soil, as follows: trees preferring to grow near water (in swamps and by running streams); trees preferring to grow in moist soil (lowlands and meadows); trees preferring to grow in rich soil (forests and thickets); trees preferring to grow in sandy or rocky soil (hillsides and barrens); trees preferring to grow in light or dry soil (upland places, meadows, and roadsides). The arrangement within these five sections is on the basis of leaf characters. The illustrations in color are from originals painted by Mrs. Rowan, and are both artistic and accurate. The pen-and-ink sketches are not so well done, but they are very helpful in determinations.

In the technical description of trees, and in what may be styled the literary appendix to each, the author is on safe ground; but in the pages on "the growth of trees" the statements become ancient in form, vague, and sometimes erroneous. The meaning can be caught by one familiar with the subject, but to the untrained the explanations do not explain.

HARRIET L. KEELER has also written a most attractive book on trees.⁴ It is designed to enable the amateur botanist and the general public to recognize trees and so become interested in them. The book is straightforward and matter-of-fact, and is calculated to develop a rational rather than a sentimental or literary interest in trees. The descriptions are clear and simple, and the accompanying remarks in the main have to do with range, time of blooming, general appearance, notable habits, uses, etc. The illustrations from photographs are as perfect as any we have seen, being exceptionally fine examples of photography and half-tone reproduction. Every detail stands out with the distinctness of the original specimens. The same high commendation cannot be given to the drawings and their reproduction, which are in sharp contrast with the exquisite half tones. As in all such books, one finds a venerable and profuse terminology, which has largely outlived its usefulness.

These books can be commended to the general public and to teachers seeking for suggestions of interesting material.—J. M. C.

MINOR NOTICES.

FASCICLES 195, 196, and 197 of Engler and Prantl's *Die natürlichen Pflanzenfamilien* have recently appeared. The first contains the completion of the Salviniaceæ and the Marsiliaceæ by R. Sadebeck and the beginning of the Marattiaceæ by G. Bitter. Fascicles 196 and 197, a double number, contain the Sphaeropsidales, Melanconiales, and Hyphomycetes, by G. Lindau.

⁴ KEELER, HARRIET L.: Our native trees, and how to identify them; a popular study of their habits and their peculiarities, with 178 illustrations from photographs and 162 illustrations from drawings. 8vo. pp. xxii + 533. New York: Charles Scribner's Sons. 1900. \$2.00.